AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (cancelled)

2. (currently amended): ~~The~~A mirror substrate~~, according to claim 1,~~wherein the substrate is made of a particle-dispersed silicon material composed of silicon carbide and silicon, and the surface of said substrate to be used as a reflecting surface is polished to a mirror finish,

wherein the Vickers hardness of said mirror substrate~~thereof~~ is 1,500 Hv or more, the 3 point bending hardness ~~thereof~~ is 500 MPa or more, and the thermal conductivity ~~thereof~~ is 100 W/m·K or more.

3. (currently amended): The mirror substrate according to claim ~~1 or~~ 2, wherein said mirror is concave.

4. (currently amended): The mirror substrate according to claim ~~1 or~~ 2, wherein said mirror is convex.

5. (currently amended): The mirror substrate according to claim ~~1 or~~ 2, wherein said mirror is planar.

6. (currently amended): The mirror substrate according to ~~any one of~~ claims ~~2~~1 ~~to 5~~, wherein the maximum diameter of the concavities and convexities or pores on the surface of said mirror substrate is 40 nm or less.

7. (currently amended): The mirror substrate according to ~~any one of~~ claims ~~2 to 5~~, wherein the maximum diameter of the concavities and convexities or pores is 20 nm or less.

8. (currently amended): The mirror substrate according to claim 6 or 7, wherein the concavities and convexities or pores on the surface of said mirror occupy [[20%]] 3% or less of the area of said mirror surface.

9. (currently amended): ~~A mirror body wherein~~ The mirror substrate of claim 2, further comprising a reflecting film ~~is~~ provided on a surface of said mirror substrate~~finish polished surface of said mirror substrate according to claim 1 or 2~~.

10. (currently amended): The mirror substrate~~body~~ according to claim 9, wherein said reflecting film is made of a metal.

11. (original): The mirror substrate~~body~~ according to claim 10, wherein said metal comprises~~is~~ gold, aluminum, silver or rhodium.

12. (currently amended): The mirror substrate~~body~~ according to claim 9, wherein said reflecting film comprises~~is made of~~ a multilayer dielectric film.

13. (currently amended): An optical device, wherein the mirror substrate~~body according~~ as in ~~to~~ any one of claims 9, ~~to~~ 12 and 21 is employed as a reflecting mirror.

14. (original): The optical device according to claim 13, wherein said optical device is a reflecting telescope.

15. (original): The optical device according to claim 13, wherein said optical device is a reflecting communication antenna.

16. (currently amended): The optical device according to claim 14 ~~or 15~~, wherein the optical device comprises a mirror reflecting the incident light beam and thereafter focusing the incident light beam on a detector.

17. (currently amended): The optical device according to ~~any one of claims~~claim 13 ~~to~~ ~~16~~, wherein the optical device comprises a first mirror for reflecting the incident light beam and thereafter focusing the light beam on a second mirror and the second mirror reflecting said focused light beam and thereafter focusing the light beam on a detector.

18. (currently amended): The optical device according to any one of ~~claims~~claim 13 ~~to~~ ~~17~~, further comprising:

structural members for supporting said mirror substrate,

wherein said structural members ~~optical device is~~comprise ~~exclusively made of~~ said particle dispersed silicon material composed of silicon carbide and silicon.

19. (currently amended): The optical device according to claim 14, further comprising a detector, wherein said detector of said optical device is an image sensor.

20. (currently amended): The optical device according to claim 15, further comprising a detector, wherein said detector of said optical device is a photodetector.

21. (new): A mirror substrate, wherein the substrate is made of a particle-dispersed silicon material composed of silicon carbide and silicon, and the surface of said substrate is to be used as a reflecting surface is polished to a mirror finish,

wherein the maximum diameter of the concavities and convexities, or pores on the surface of said mirror substrate is 40 nm or less.

22. (new): A mirror substrate made of a particle-dispersed silicon material composed of silicon carbide and silicon, and the surface of said substrate is to be used as a reflecting surface is polished to a mirror finish,

wherein a maximum diameter of concavities and convexities, or pores is 20 nm or less.

23. (new): The mirror substrate according to claim 21, wherein the concavities and convexities, and pores on the surface of said mirror occupy 2% or less of the area of said mirror surface.

24. (new): The mirror substrate according to claim 22, wherein the concavities and convexities, and pores on the surface of said mirror occupy 2% or less of the area of said mirror surface